

# WebCHECK®

CONTINUOUS MATERIAL INSPECTION SYSTEM



vision device

**USES THE MOST ADVANCED MACHINE VISION TECHNIQUES.**

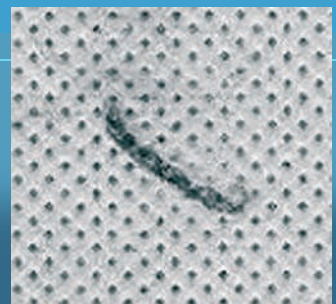
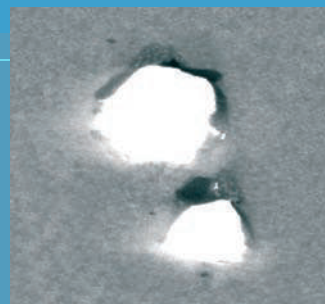
**INSPECTION OF 100% OF THE PRODUCTION, AT HIGH SPEED.**

**DEFECT DETECTION, CLASSIFICATION AND REPORTING.**

**TOTAL FLEXIBILITY AND ADAPTABILITY OF THE CHECK.**

**ADVANCED USER INTERFACE, GRAPHIC AND INTERACTIVE.**

**COMPLETE "TURNKEY" INDUSTRIAL SYSTEM.**



### **INSPECTABLE MATERIALS**

- **Transparent and opaque plastic films**
- **Paper and similar**
- **Fabric**
- **Unwoven fabric**
- **Aluminium, plates, laminates**
- **Float glass or glass slabs**

### **DETECTABLE DEFECTS**

- **Holes**
- **Tears**
- **Lumps**
- **Inclusions of foreign materials**
- **Spots**



## OPERATING PRINCIPLE

The images are acquired by means of linear camera and processed to extract the features to be checked, obtaining a fully automatic assessment. Elaboration is continuous, with perfectly parallel phases and dynamic algorithms.

## DEFECT CHARACTERIZATION

The first stage of the analysis consists in recognizing and sorting the defects contained in the product. The defects are always highlighted as local variation of the image with respect to the standard background of the product, usually as lighter or darker spots. Then, they are evaluated according to a set of features, such as:

- Contrast of the defect with respect to the background
- Area, Perimeter, Dimensions and Position
- Form coefficient (stocky/stretched out)
- Filling coefficient (regular/jagged)
- Prevalent orientation (horizontal/vertical)

For each of these features, it is possible to define acceptability limit criteria, below which the product is still considered as acceptable.

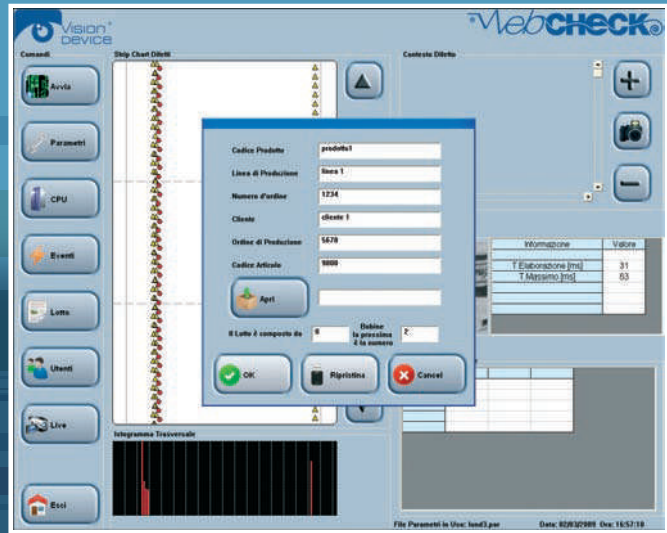
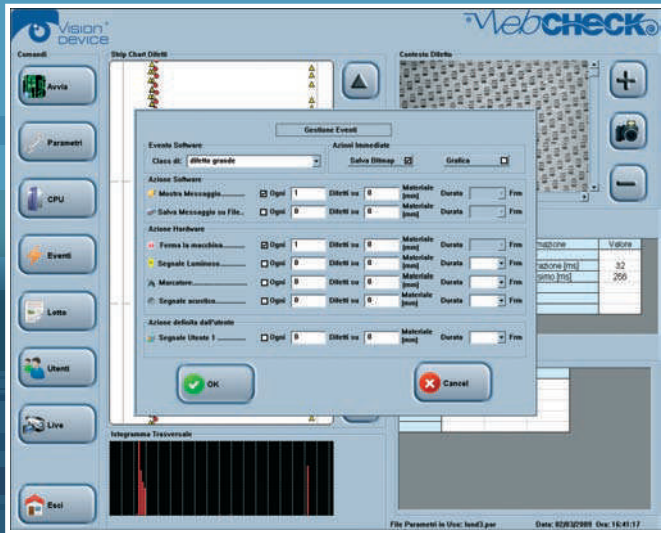
## SECTION MANAGEMENT

It is possible to split the inspection width in an arbitrary number of strips, even with different width. The detected defects and the related thresholds are valid for each strip.

## REPORTS

WebCHECK stores the information about the product and its quality. These data can be printed at any time, on labels or printouts, or exported to external supervision systems. The identification of the inspected product can be realized by means of the following data:

- Product code
- Inspection code
- Lot number
- Unit number (roller, coil)
- Inspection date and time
- Meters produced, number of strips
- Detected defects (both totals and by strip)



## CONTINUOUS INSPECTION IN REAL TIME

With WebCHECK, the check of continuous processes occurs without interruptions and with constant accuracy to be able to promptly detect any defect in any part of the product.

**WebCHECK performs the following operations in parallel:**

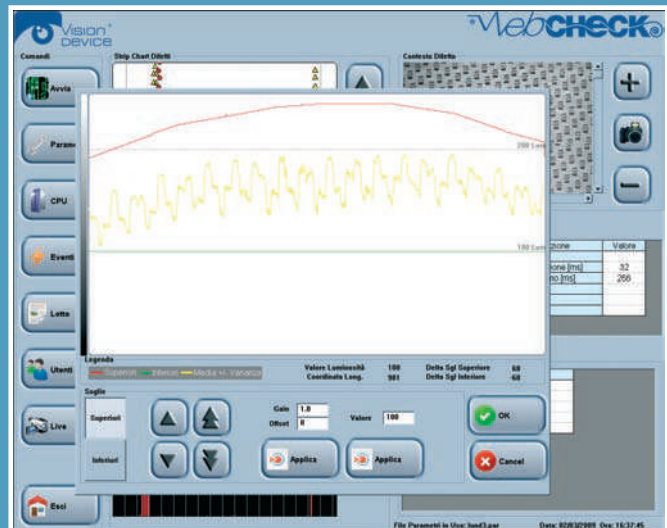
- Image acquisition and digitizing
- Display of the images on the screen
- Image processing
- Result reporting and ensuing actions



The software is dynamic and the remarkable hardware capabilities enable simultaneous acquisition and processing.

**Accurate, timely indications:**

- Providing an immediate feedback on the manufacturing process
- Enabling to execute actions in real time
  - Hardware (sound or light signal, marker, line stop, etc.);
  - Software (on screen message, save to statistics, save defect image, etc.).



WebCHECK is a system to inspect continuous materials in the manufacturing line, based on machine vision, able to detect defects and anomalies on 100% of the production.

The remarkable production speed of the current lines does not allow useful inspections by human operators: machine vision is the best answer to the automation requirements of continuous process inspection operations. With WebCHECK, the check of continuous processes occurs without interruptions and with constant accuracy. The system is able to promptly detect any defect in any part of the product, enabling its removal or indication. The ensuing Customer satisfaction is surely the major benefit and return of the investment.

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